

Claims

- Sub a1*
1. Transmission unit
 - 1.1 with a transmission input shaft (E) and a transmission output shaft (A), and a transmission basic unit (25) situated between transmission input shaft (E) and transmission output shaft (A), which is connected to an angular drive (4);
 - 1.2 where the angular drive (4) includes at least a bevel gear drive (3) with a first bevel gear (8) and a second bevel gear (9), where the second bevel gear (9) is solidly connected to the transmission output shaft, at least indirectly;
 - 1.3 with a transmission housing (5) that includes at least a transmission base housing (6) that covers the transmission basic element (25), and which can be connected to a housing cover formed by a transmission housing component (7), which covers the angular drive (4) at least in part; characterized by the following characteristics:
 - 1.4 the first bevel gear (8) of angular drive (4) and a transmission element of the transmission basic element (25), which constitutes the output (15) of transmission basic element (25), have a direct and solid connection and are located in immediate proximity to each other;
 - 1.5 the transmission basic element (25) does not include any elements capable of generating axial forces to act against the housing cover on the housing wall.
 2. Transmission unit according to claim 1 characterized by the following characteristics:
 - 2.1 the transmission basic unit (25) includes at least one epicyclic gear train (27) with at least one annulus (26), one sun gear (12), pinion gears (13) and a bar (14) or a cylindrical gear pair;
 - 2.2 the output (15) of transmission basic unit (25) consists of an element of the epicyclic gear train (27) or the cylindrical gear pair.
 3. Transmission unit according to one of claims 1 or 2 characterized by having a solid connection consisting of complementary driving elements, which may be brought to bear upon each other, on the transmission elements functioning as output (15) and the first bevel gear (8).

- a'at*
4. Transmission unit according to one of claims 2 or 3 characterized by having driving elements on the first bevel gear (8) and/or on the transmission element that forms the output (15) of the transmission basic unit (25) and the corresponding driving elements on the transmission element that forms the output (15) of the transmission basic unit (25) and/or the first bevel gear (8), which are oriented and positioned in an axial direction relative to the position of the transmission axle, specifically the transmission input shaft (E), as installed.
 5. Transmission unit according to one of claims 2 or 3 characterized by having driving elements on the first bevel gear (8) and/or on the transmission element that forms the output (15) of the transmission basic unit (25) and the corresponding driving elements on the transmission element that forms the output (15) of the transmission basic unit (25) and/or the first bevel gear (8), which are oriented and positioned in a radial direction relative to the position of the transmission axle, specifically the transmission input shaft (E), as installed.
 6. Transmission unit according to claim 5 characterized by the following characteristics:
 - 6.1 the driving elements are positioned in the area of the interior circumference of the transmission element, which forms the output (15);
 - 6.2 the driving elements complementary to it are positioned on the first bevel gear (8) in the area of its external circumference (16).
 7. Transmission unit according to one of claims 4 to 6 characterized by the following characteristics:
 - 7.1 the output (15) of transmission basic unit (25) consists of the annulus (26) of the epicyclic gear train (27);
 - 7.2 the driving elements consist of an exterior toothing (28) on the first bevel gear (8) complementary to the interior toothing (29) of annulus (26), where annulus (26) has an elongation in an axial direction, which does not connect to the pinion gears (13) and where the first bevel gear (8) has a segment (35) with no beveled toothing.

8. Transmission unit according to one of claims 2 to 6 characterized by having an output (15) of the transmission basic unit (25) with a transmission element consisting of a sun gear (12) or a bar (14) of the epicyclic gear train (27) or a cylindrical gear.

9. Transmission unit according to one of claims 1 to 8 characterized by the following characteristics:
the transmission housing component (7), which encloses the transmission unit at least in the area of the angular drive (4), is designed such that, for all theoretically possible angular drives with the following characteristics:
- the gear ratio i is essentially constant and the outside diameters of the various bevel gears are essentially constant,
it has the same exterior dimensions, where various position angles for the transmission output shaft (A) may be realized by an exchangeable apparatus to support the second bevel gear (9) and/or the transmission output gear (A).

10. Transmission unit according to claim 9 characterized by having transmission housing component (7) consist of a single housing.

11. Transmission unit according to one of claims 1 to 10 characterized by having the transmission basic unit (25) consist of a hydrodynamic and a mechanical transmission component.

12. Transmission unit according to one of claims 1 to 11 characterized by the possibility that the angular drive (4) and the housing component, which covers it at least partially, can be combined to a modular unit.

13. Transmission unit according to one of claims 1 to 12 characterized by having straight toothing in the toothings of the connected bevel gears.

14. Transmission unit according to one of claims 1 to 13 characterized by having diagonal toothing in the toothings of the connected bevel gears of the bevel gear drive.

- all 15*
16. Transmission unit according to one of claims 14 or 15 characterized by having identical height of the toothing of the bevel gears of the bevel gear drive.
- odd or >*